The following claims are presented for examination:

**1.** (currently amended) An electro-optical element (1) comprising a substrate (2) and at least one electro-optical structure (4) which comprises an active layer with at least one organic, electro-optical material (61), the substrate having at least one antireflection coating (8, 10) with at least one layer, wherein the antireflection coating (8, 10) layer has a thickness and a refractive index for which the integral reflectivity at the boundary faces of the antireflection coating is ~~**one of: (i)**~~ minimal for light beams emerging from the active layer at all angles for a wavelength in the spectral region of the emission spectrum, **or for which the integral reflectivity is** ~~**and (ii)**~~ at most 25% higher than the minimum, the integral reflectivity being the reflectivity which is integrated over all the emission angles of light beams which emerge from the active layer, at the boundary faces of the antireflection coating.

**2.** (currently amended) The element as claimed in claim 1, wherein the thickness of the coating and the refractive index of the antireflection coating are selected such that the integral of the reflectivity of the antireflection coating

1) $$I(n_1, n_2, n_3, d) = \int_0^{\pi/2} R(n_1, n_2, n_3, d, \theta) \sin(\theta) d\theta$$

is ~~**one of (i)**~~ minimal ~~**and (ii)**~~ **or** deviates from the minimum value by 25% at most, $n_2$ designating the refractive index of the antireflection coating (10), $n_1$ and $n_3$ designating the refractive indices of the media which adjoin the antireflection coating (10), $\theta$ designating the angle of the emitted light with respect to the perpendicular to the boundary face of the antireflection coating facing the emitter, and d designating the coating thickness of the antireflection coating, and the following being stipulated for the reflectivity $R(n_1, n_2, n_3, d, \theta)$:

2) $$R(n_1, n_2, n_3, d, \theta) = \frac{R_{TE} + R_{TM}}{2}$$ , where

3) $$R_{TE} = \frac{r^2_{12} + r^2_{23} + 2r_{12}r_{23}\cos(2\beta)}{1 + r^2_{12}r^2_{23} + 2r_{12}r_{23}\cos(2\beta)}$$ , where

3a) $$r_{12} = \frac{n_1\cos(\alpha_1) - n_2\cos(\alpha_2)}{n_1\cos(\alpha_1) + n_2\cos(\alpha_2)}$$ , and

3b) $$r_{23} = \frac{n_2\cos(\alpha_2) - n_3\cos(\alpha_3)}{n_2\cos(\alpha_2) + n_3\cos(\alpha_3)}$$, or

4) $$R_{TM} = \frac{r^2_{12} + r^2_{23} + 2r_{12}r_{23}\cos(2\beta)}{1 + r^2_{12}r^2_{23} + 2r_{12}r_{23}\cos(2\beta)}$$, where

4a) $$r_{12} = \frac{n_2\cos(\alpha_1) - n_1\cos(\alpha_2)}{n_2\cos(\alpha_1) + n_1\cos(\alpha_2)}$$, and

4b) $$r_{23} = \frac{n_3\cos(\alpha_2) - n_2\cos(\alpha_3)}{n_3\cos(\alpha_2) + n_2\cos(\alpha_3)}$$ , and where

5) $$\beta = \frac{2\pi}{\lambda_0} n_2 d\cos(\alpha_2)$$ applies, and where

- the angle $\alpha_1=\theta$ designates the angle measured with respect to the perpendicular to the boundary face, of a light beam which is incident on the antireflection coating,
- the angle $\alpha_2$ designates the angle measured with respect to the perpendicular to the boundary face of the light beam which is refracted at the boundary face between the medium with the refractive index $n_1$ and the antireflection coating and which travels in the antireflection coating,
- the angle $\alpha_3$ designates the angle of the light beam which is refracted once more at the opposite boundary face with respect to the medium with the refractive index $n_3$ and travels in this medium, and
- $\lambda_0$ designates the wavelength of the light in the vacuum.

**3.** (currently amended) The element as claimed in claim 1, wherein the antireflection coating (8, 10) layer has a thickness and a refractive index for which the reflectivity, which is integrated over all the angles of the light beams emerging from the active layer and the wavelengths of the spectral region of the emitted radiation and which is weighted with the spectral intensity distribution, at the boundary faces of the antireflection coating (8, 10), is ~~one of (i)~~ minimal ~~and (ii)~~ **or** at most 25 percent higher than the minimum.

**4.** (currently amended) The element as claimed in claim 1, wherein the antireflection coating layer has a refractive index $n_2(\lambda)$ and a thickness d, in which the integral:

$$I(n_1(\lambda), n_2(\lambda), n_3(\lambda), d) = \int_{\lambda_1}^{\lambda_2} \int_{0}^{\pi/2} S(\lambda) \cdot R(n_1(\lambda), n_2(\lambda), n_3(\lambda), d, \theta) \sin(\theta) d\theta d\lambda$$

is ~~one of (i)~~ minimal ~~and (ii)~~ **or** at most 25 percent higher than the minimum, $S(\lambda)$ designating the spectral intensity distribution function, $V(\lambda)$ the spectral sensitivity of the eyes, $R(n_1(\lambda), n_2(\lambda), n_3(\lambda), d, \theta)$ designating the reflectivity as a function of the emission angle $\theta$, coating thickness d and the wavelength-dependent refractive index $n_2(\lambda)$ of the antireflection coating and of the adjacent media, $n_1(\lambda)$, $n_3(\lambda)$, and $\lambda_1$ and $\lambda_2$ designating the boundaries of the emission spectrum.

**5.** (currently amended) The element as claimed in claim 1, wherein the antireflection coating (8, 10) layer has a thickness and a refractive index for which the reflectivity, which is integrated over all the angles of the light beams emerging from the active layer and the wavelengths of the spectral range of the emitted radiation and is weighted with the spectral intensity distribution and the spectral sensitivity of the eyes, at the boundary faces of the antireflection coating (8, 10) is ~~one of (i)~~ minimal ~~and (ii)~~ **or** at most 25 percent higher than the minimum.

**6.** (currently amended) The element as claimed in claim 1, wherein the antireflection coating layer has a refractive index $n_2(\lambda)$ and a thickness d, in which the integral:

$$I(n_1(\lambda), n_2(\lambda), n_3(\lambda), d) = \int_{\lambda_1}^{\lambda_2} \int_0^{\pi/2} S(\lambda) \cdot V(\lambda) \cdot R(n_1(\lambda), n_2(\lambda), n_3(\lambda), d, \theta) \sin(\theta) d\theta d\lambda$$

is ~~one of (i)~~ minimal ~~and (ii)~~ **or** at most 25 percent higher than the minimum, $S(\lambda)$ designating the spectral intensity distribution function, $V(\lambda)$ the spectral sensitivity of the eyes, $R(n_1(\lambda), n_2(\lambda), n_3(\lambda), d, \theta)$ designating the reflectivity as a function of the emission angle $\theta$, coating thickness d and the wavelength-dependent refractive index $n_2(\lambda)$ of the antireflection coating and of the adjacent media, $n_1(\lambda)$, $n_3(\lambda)$, and $\lambda_1$ and $\lambda_2$ designating the boundaries of the emission spectrum.

**7.** (previously presented) The element as claimed in claim 1, wherein the at least one electro-optical structure (4) comprises a first conductive layer (41) and a second conductive layer (42) between which an active layer (6), which comprises the at least one organic, electro-optical material (61), is arranged.

**8.** (previously presented) The element as claimed in claim 7, wherein at least one of the first and second conductive layers is at least partially transparent.

**9.** (previously presented) The element as claimed in claim 1, characterized in that the substrate comprises glass.

**10.** (previously presented) The element as claimed in claim 1, characterized in that the at least one antireflection coating (8, 10) comprises a plurality of layers.

**11.** (original) The element as claimed in claim 10, wherein the layers (81, 83, 85, 101, 103, 105) have different refractive indices.

**12.** (previously presented) The element as claimed in claim 10, wherein the antireflection coating (8, 10) has three layers (81, 83, 85, 101, 103, 105).

**13.** (original) The element as claimed in claim 12, wherein the layers are arranged, starting from the substrate, in a layer sequence of a layer with a medium refractive index (81, 101) / layer with a high refractive index (83, 103) / layer with a low refractive index

(85, 105).

**14.** (previously presented) The element as claimed in claim 10, in which the antireflection coating (10) has at least two layers, and one of the conductive layers (41, 42) is adjacent to the antireflection coating (10), wherein the conductive layer (41, 42) has a refractive index which is less than the refractive indices of the at least two layers of the antireflection coating (10).

**15.** (previously presented) The element as claimed in claim 1, wherein the antireflection coating (8, 10) has at least one of the following materials: titanium oxide, tantalum oxide, niobium oxide, hafnium oxide, aluminum oxide, silicon oxide, magnesium nitride.

**16.** (previously presented) The element as claimed in claim 1, wherein the at least one antireflection coating (10) is arranged on the side (22) of the substrate (2) on which the at least one electro-optical structure (4) is applied.

**17.** (previously presented) The element as claimed in claim 1, wherein at least one adaptation coating (5) is arranged between the antireflection coating (8) and electro-optical structure (4).

**18.** (previously presented) The element as claimed in claim 1, defined by at least one antireflection coating on the side (21) of the substrate (2) which is opposite the side (22) on which the at least one electro-optical structure (4) is arranged.

**19.** (canceled)

**20.** (previously presented) The element (1) as claimed in claim 1, wherein the antireflection coating (10) has light-scattering structures (7).

**21.** (previously presented) The element as claimed in claim 20, wherein the light-scattering structures (7) comprise at least one of crystals, particles and occlusions in the antireflection coating (10).

**22.** (previously presented) The element as claimed in claim 1, defined by a structured boundary face with light-scattering structures between the antireflection coating and substrate.

**23.** (previously presented) The element as claimed in claim 1, defined by an additional layer (11) with light-scattering structures (7).

**24.** (original) The element as claimed in claim 23, wherein the additional coating (11) has a refractive index which corresponds essentially to the refractive index of the substrate, and the additional layer (11) is arranged on the substrate (2).

**25.** (currently amended) A method for manufacturing an organic, electro-optical element (1), comprising ~~**the steps**~~:

- coating at least one side (21, 22) of a substrate (2) with an antireflection coating (8, 10),

and

- applying at least one electro-optical structure (4), which comprises at least one organic, electro-optical material (61), where the substrate is coated with an antireflection coating (8, 10) which has at least one layer with a thickness and a refractive index for which the integral reflectivity at the boundary faces of the antireflection coating (10) for light beams emerging for all angles in the active layer and for a wavelength in the spectral range of the emitted light is ~~**one of (i)**~~ minimal <u>**or for which the integral reflectivity is**</u> ~~**and (ii)**~~ at most 25 percent higher than the minimum, the integral reflectivity being the reflectivity which is integrated over all the emission angles of light beams which emerge from the active layer, at the boundary faces of the antireflection coating.

**26.** (original) The method as claimed in claim 25, wherein the step of applying at least one electro-optical structure (4) comprises the steps:

- applying a first conductive layer (41),
- applying at least one active layer (6), which comprises the at least one organic, electro-optical material (61), and
- applying a second conductive layer (42).

**27.** (previously presented) The method as claimed in claim 25, wherein the step of coating at least one side (21, 22) of a substrate (2) with an antireflection coating (8, 10) comprises the step of coating with an antireflection coating (8, 10) which has a plurality of layers (81, 83, 85, 101, 103, 105).

**28.** (previously presented) The method as claimed in claim 25, wherein the step of coating at least one side (21, 22) of a substrate (2) with an antireflection coating (8, 10) comprises the steps:

- applying a layer with a medium refractive index (81, 101),
- applying a layer with a high refractive index (83, 103), and
- applying a layer with a low refractive index (85, 105).

**29.** (previously presented) The method as claimed in claim 25, wherein the substrate (2) is coated with an antireflection coating (10) which has light-scattering structures (7).

**30.** (previously presented) The method as claimed in claim 29, wherein an antireflection coating (10) is applied which contains at least one of crystals, particles and occlusions which have a refractive index or orientation which differs from that of the surrounding material.

**31.** (previously presented) The method as claimed in claim 25, wherein an additional layer (11) with light-scattering structures (7) is applied.

**32.** (original) The method as claimed in claim 30, wherein the additional layer has a refractive index which corresponds essentially to the refractive index of the substrate, and the additional layer (11) is applied to the substrate.

**33.** (previously presented) The method as claimed in claim 25, wherein the antireflection coating (10) is applied to a structured side (22) of the substrate (2).

**34.** (previously presented) The method as claimed in claim 25, wherein the antireflection coating (10) is applied to a roughened side (22) of the substrate (2).

**35.** (previously presented) The method as claimed in claim 25, wherein the antireflection coating is applied to a side (22) of the substrate (2) which is provided with regular structures.

**36.** (previously presented) The method as claimed in claim 25, wherein at least one adaptation coating (5) is applied to the antireflection coating (8).

**37.** (previously presented) The method as claimed in claim 25, wherein the at least one antireflection coating (8, 10) and the at least one electro-optical structure (4) are applied to opposite sides (21, 22) of the substrate (2).

**38.** (previously presented) The method as claimed in claim 25, wherein antireflection coatings (8, 10) are applied to each side of the substrate (2).

**39.** (currently amended) The method as claimed in claim 25, wherein the step of coating at least one side (21, 22) of a substrate (2) with an antireflection coating (8, 10) is carried out with ~~**one of (i)**~~ vacuum coating, **[[(ii)]]** chemical deposition from the gas phase (CVD), **[[(iii)]]** thermally or plasma-enhanced chemical vapor deposition (PECVD) or plasma impulse chemical vapor deposition (PICVD), ~~**and (iv)**~~ <u>**or carried out**</u> by means of Sol-gel coating, immersion, spray or centrifugal coating.

**40.** (currently amended) The method as claimed in claim 25, wherein the thickness and the refractive index of the layer for which the integral reflectivity at the boundary faces of the antireflection coating (10) for all the light beams emerging for all angles in the active layer and for a wavelength in the spectral region of the emitted light is ~~**one of (i)**~~ minimal <u>**or for which the integral reflectivity is**</u> ~~**and (ii)**~~ at most 25 percent higher than the minimum, are calculated.

**41.** (currently amended) A substrate comprising an antireflection coating (8, 10) with at least one layer, wherein the antireflection coating layer has a thickness and a refractive index for which the integral reflectivity at the boundary faces of the antireflection coating is ~~**one of: (i)**~~ minimal for light beams emerging from the active layer at all angles for a wavelength in the spectral region of the emission spectrum, ~~**and (ii)**~~ <u>**or for which the integral reflectivity is**</u> at most 25% higher than the minimum, the integral reflectivity

being the reflectivity which is integrated over all the emission angles of light beams which emerge from the active layer, at the boundary faces of the antireflection coating.

**42.** (previously presented) The substrate as claimed in claim 41 wherein the antireflection coating layer has an optical thickness of at least 3/8 of a wavelength of the transmission spectrum or emission spectrum.

**Claims 43 through 46** (canceled)